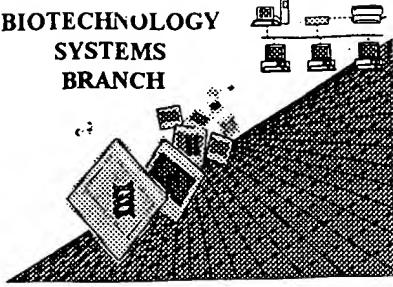


RAW SEQUENCE LISTING ERROR REPORT



The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/894,912
Source: OIPK
Date Processed by STIC: 7/18/2001

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

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FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: patin3help@uspto.gov or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

Checker Version 3.0

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

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Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

Checker Version 3.0 can be down loaded from the USPTO website at the following address:
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OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/894,912

DATE: 07/18/2001
TIME: 10:30:01

Input Set : A:\37260Aseq.txt
Output Set: N:\CRF3\07182001\I894912.raw

5 <110> APPLICANT: Tang et al.
8 <120> TITLE OF INVENTION: METHODS AND MATERIALS RELATING TO NOVEL STEM CELL GROWTH
FACTOR-LIKE
9 POLYPEPTIDES AND POLYNUCLEOTIDES
12 <130> FILE REFERENCE: 28110/37260A
14 <140> CURRENT APPLICATION NUMBER: US/09/894,912
15 <141> CURRENT FILING DATE: 2001-06-28
17 <150> PRIOR APPLICATION NUMBER: To be assigned
18 <151> PRIOR FILING DATE: 2001-04-05
20 <150> PRIOR APPLICATION NUMBER: 60/266,614
21 <151> PRIOR FILING DATE: 2001-02-05
23 <150> PRIOR APPLICATION NUMBER: 60/215,733
24 <151> PRIOR FILING DATE: 2000-06-28
26 <150> PRIOR APPLICATION NUMBER: 09/757,562
27 <151> PRIOR FILING DATE: 2001-01-09
29 <150> PRIOR APPLICATION NUMBER: 09/543,774
30 <151> PRIOR FILING DATE: 2000-04-05
33 <160> NUMBER OF SEQ ID NOS: 48
35 <170> SOFTWARE: PatentIn version 3.0
39 <210> SEQ ID NO: 1
40 <211> LENGTH: 301
41 <212> TYPE: DNA
42 <213> ORGANISM: Homo sapiens
44 <400> SEQUENCE: 1

45	gcacgagacg	aggaaaaaaaaa	ggaagggaga	ggaaaagaaa	aaaaccta	aaaggagaaa	60
47	gtaaaaga	agc aatacctg	acg aaaaagtc	tggatccag	caaagaaatc	ccagagcaac	120
49	gagaaaaacaa	acagcagcag	aagaagcga	aagtccaaga	taaacagaaa	tcggtatcag	180
51	tcagcactgt	acactagagg	gttccatgag	attattgtag	actcatgatg	ctgcttatctc	240
53	aaccagatgc	ccaggacagg	tgctctagcc	attaggacca	caaatggaca	tgtcagttat	300
55	t						301
58	<210>	SEQ ID NO:	2				
59	<211>	LENGTH:	392				
60	<212>	TYPE:	DNA				
61	<213>	ORGANISM:	Homo sapiens				
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64	tggactcga	tatccagata	taaataagcg	tacaaaatgc	aaagctgact	gtgatacc	60
66	tttcaacaaa	gatttctgca	caaaatgtaa	aagtggattt	tacttacacc	ttggaaagt	120
68	ccttgacaat	tgcccagaag	ggttggaa	gc caacaaccat	actatggagt	gtgtcagtat	180
70	tgtcactgt	gaggtcagtg	aatggaatcc	ttggagtcca	tgcacgaaga	aggaaaaac	240
72	atgtggcttc	aaaagaggga	ctgaaaacacg	ggtccgagaa	ataatacagc	atccttcagc	300
74	aaagggtaac	ctatgtcccc	caacaaatga	gacaagaaag	tgtacagtgc	aaaggaagaa	360
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81	<212>	TYPE:	DNA				
82	<213>	ORGANISM:	Homo sapiens				
84	<220>	FEATURE:					
85	<221>	NAME/KEY:	misc_feature				

Does Not Comply
Corrected Diskette Needed

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/894,912

DATE: 07/18/2001
TIME: 10:30:01

Input Set : A:\37260Aseq.txt
Output Set: N:\CRF3\07182001\I894912.raw

87 <222> LOCATION: (1)..(475)
88 <223> OTHER INFORMATION: n = A, T, G, or C
91 <400> SEQUENCE: 3

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W--> 94 ccacgcgtnc gcccacgcgt cccggagagga aaagaaaaaa acctaattta ggagaaaagta 120
96 aagaagcaat acctgacagc ggaagtctgg aatggagcaa agaaatccca gagcaacgag 180
98 aaaacaaaca gcagcagaag aagcgaaaag tccaaagataa acagaaatcg gtatcgtca 240
100 gcactgtaca ctagagggtt ccatgagatt atttagact catgatgtc tatctcaac 300
102 cagatgccca ggacaggtgc tctagccatt aggaccacaa atggacatgt cagttattgc 360
104 tctgtctaaa caacattccc agtagttgtc atattctca tacaagcata gttaacaaca 420
W--> 106 aagagccaaa agatcaaaga agggatactt tcagatgggt gtcttgtgtc cttcn 475
109 <210> SEQ ID NO: 4
110 <211> LENGTH: 473
111 <212> TYPE: DNA
112 <213> ORGANISM: Homo sapiens
114 <220> FEATURE:
115 <221> NAME/KEY: misc_feature
117 <222> LOCATION: (1)..(473)
118 <223> OTHER INFORMATION: n = A, T, G, or C
121 <400> SEQUENCE: 4

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124 aaaaaaggaa gggagaggaa aagaaaaaaa cctaataaaag gagaaagtaa agaagcaata 120
126 cctgacagca aaagtctgga atccagcaga gaaatcccg agcaacgaga aaacaaacag 180
128 cagcagaaga agcgaaaagt ccaagataaa cagaaatcg tatcagtctac cactgtacac 240
130 tagagggttc catgagatta ttgttagactc atgatgtc tatctcaacc agatgccag 300
132 gacaggtgtc ctagccatta ggaccacaaa tggacatgtc agttattgtc ctgtctaaac 360
134 aacattccca gtagttgcta tattcttcat acaagcatag ttaacaacaa agagccaaaa 420
136 gatcaaagaa gggatacttt cagatgggtc tcttgtgtc ttctctgtcat ttt 473
139 <210> SEQ ID NO: 5
140 <211> LENGTH: 462
141 <212> TYPE: DNA
142 <213> ORGANISM: Homo sapiens
145 <220> FEATURE:
146 <221> NAME/KEY: misc_feature
148 <222> LOCATION: (1)..(462)
149 <223> OTHER INFORMATION: n = A, T, G, or C
152 <400> SEQUENCE: 5

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155 agggaaagaa aaaaacctaa taaaggagaa agtaaagaat caatttctga cagcaaaagt 120
157 ctggaatcca tcaaagaaat cccatatcaa cgagaaaaca gacagcagca caaaaagcga 180
159 aaagtccaaat ataaacagaa atcggtatca gtcagcactg tacactagag gttccatga 240
161 gattattgtt gactcatgat gctgctatct caaccagatg cccaggacag gtgtctatc 300
163 cattacgacc acaaatggac atgtcaggtt ttgtctgtc taaacaacat tcccgatgt 360
165 tgctatattc ttcatacaag catagttaa aacaaagagc caaaagatca aagaagggat 420
167 actttcagat gttgtcttgc tgcatttttta aa 462
170 <210> SEQ ID NO: 6
171 <211> LENGTH: 384
172 <212> TYPE: DNA
173 <213> ORGANISM: Homo sapiens

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/894,912

DATE: 07/18/2001
TIME: 10:30:02

Input Set : A:\37260Aseq.txt
Output Set: N:\CRF3\07182001\I894912.raw

176 <400> SEQUENCE: 6
177 aataatgtgt aacaaatgca aagctgactg tgataacctgt ttcaacaaaa atttctgcac 60
179 aaaatgtaaa agtgatttt acttacacct tggaaagtgc cttgacaatt gcccagaagg 120
181 gttgaagcc aacaaccata ctatggagtg tgtcagtatt gtgcactgtg aggtcagtga 180
183 atggaatcct tggagtccat gcacgaagaa gggaaaaaca tgtggcttca aaagagggac 240
185 tggaaacacgg gtccgagaaa taatacagca tccttcagca aagggttaacc tatgtcccc 300
187 aacaaatgag acaagaaaagt gtacagtgc aaggagaag tgtcagaagg gagaacgagg 360
189 aaaaaaagga agggagggaa aaag 384
192 <210> SEQ ID NO: 7
193 <211> LENGTH: 390
194 <212> TYPE: DNA
195 <213> ORGANISM: Homo sapiens
197 <220> FEATURE:
198 <221> NAME/KEY: misc_feature
200 <222> LOCATION: (1)..(390)
201 <223> OTHER INFORMATION: n = A, T, G, or C
204 <400> SEQUENCE: 7
205 ctttgctctg ggatttctt gctggattcc agactttgc tgtcaggat tgcttcttta 60
207 ctttctcctt tattaggttt ttttctttc ctctcccttc ctttttttcc tcgttctccc 120
209 ttctgacact ttttcttgc cactgtacac ttttctgtct catttgggttgg gggacatagg 180
211 ttaccctttt ctgaaggatg ctgtattatt tctcgaccc gtgtttcagt ccctctttt 240
213 aagccacatg ttttccctt ctctgtgcattt ggactccaag gattccattc actgaccta 300
215 cagtgcacaaa tactgacaca ctccatagta tgggttgg cttccaaccc ttctggcaa 360
217 **ttgtcaaggc acttccaag gtgtaa** 390
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221 <211> LENGTH: 1345
222 <212> TYPE: DNA
223 <213> ORGANISM: Homo sapiens
225 <220> FEATURE:
226 <221> NAME/KEY: misc_feature
228 <222> LOCATION: (321)..(1235)
229 <223> OTHER INFORMATION: similar to gi4519541 in the genpept database release 114,

Run wit

230 h FASTXY3.3t00, default parameter
233 <400> SEQUENCE: 8
234 gccccccccc cggccgctcc tggaaaccccg gttcgccgcg atgccagcca ccccagcgaa 60
236 gcccggcag ttcaatgtgtt ggataatttg aaagtacaat agttggtttc cctgtccacc 120
238 cggcccaactt cgcttgccat cacagcacgc ctatcgatg tgagaggaga agtcccgctg 180
240 ctcgggact gtctatatac gcctaacc tacatattttt taaaaacat taaaatataat 240
242 taacaatcaa aagaaagagg agaaaggaaag ggaagcatta ctgggttact atgcacttgc 300
244 gactgatttc ttggctttt atcattttga actttatgaa atacatcgcc agccaaaacg 360
246 cttcccgaaa aaggcgccag cgaagaatgc atcctaactgt tagtcaaggc tgccaaaggag 420
248 gctgtcaac atgctcagat tacaatggat gtttgcattg taagcccaaa ctatttttt 480
250 ctctggaaag aattggcatg aagcagattt gagatgtct catcttcatg tccaaatgtt 540
252 tattatggaa ctcgatatacc agatataat aatgttaca aaatgcaaaatg ctgactgtga 600
254 tacctgtttc aacaaaaatt tctgcacaaa atgtaaaagt ggattttact tacacccttgg 660
256 aaagtgcctt gacaattgcc cagaagggtt ggaagccaaac aaccataacta tggagtgtgt 720
258 cagtattgtg cactgtgagg tcagtgaatg gaatccttgg agtccatgc cgaagaagg 780
260 aaaaacatgt ggcttcaaaa gagggactga aacacgggtc cgagaaataa tacagcatcc 840
262 ttcagcaaaatg ggtaacctat gtcggccaaac aaatgagaca agaaagtgtt cagtgcacaa 900

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/894,912

DATE: 07/18/2001

TIME: 10:30:02

Input Set : A:\37260Aseq.txt

Output Set: N:\CRF3\07182001\I894912.raw

264	gaagaagtgt	cagaaggggag	aacgaggaaaa	aaaaggaagg	gagaggaaaa	gaaaaaaacc	960	
266	taataaagga	gaaagtaaag	aagcaatacc	tgacagcaaa	agtctggaat	ccagcaaaga	1020	
268	aatcccagag	caacgagaaa	acaaacagca	gcagaagaag	cgaaaagtcc	aagataaaaca	1080	
270	gaaatcggt	tcagtcagca	ctgtacacta	gagggttcca	tgagattatt	gtagactcat	1140	
272	gatgctgcta	tctcaaccag	atgcccagga	caggtctct	agccattagg	accacaaatg	1200	
274	gacatgttag	ttattgctct	gtctaaacaa	cattcccagt	agttgctata	ttcttcatac	1260	
276	aagcatagg	aacaacaaag	agccaaaaga	tcaaagaagg	gatacttca	gatggttgtc	1320	
278	ttgtgtgctt	ctctgcattt	ttaaa				1345	
281	<210>	SEQ ID NO:	9					
282	<211>	LENGTH:	1343					
283	<212>	TYPE:	DNA					
284	<213>	ORGANISM:	Homo sapiens					
286	<220>	FEATURE:						
287	<221>	NAME/KEY:	CDS					
289	<222>	LOCATION:	(291)..(1109)					
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295	gccggccgca	ggccgtcttt	ggataatttg	aaagtacaat	agttggtttc	cctgtccacc	120	
297	cggcccaactt	cgcttgccat	cacagcacgc	ctatcgatg	tgagaggaga	agtcccgtg	180	
299	ctcgggcact	gtctatatac	gcctaacacc	tacatatatt	ttaaaaacat	taaatataat	240	
301	taacaatcaa	aagaaagagg	agaaaggaag	ggaagcatta	ctgggttact	atg cac	296	
302						Met His		
303						1		
305	ttg cga	ctg att	tct tgg	ctt ttt	atc att	ttg aac	344	
306	Leu Arg	Leu Ile	Ser Trp	Leu Phe	Ile Ile	Leu Asn	Phe Met Glu Tyr	
307	5	10				15		
309	atc ggc	agc caa	aac gcc	tcc cgg	gga agg	cgc cag	cga aga atg cat	392
310	Ile Gly	Ser Gln	Asn Ala	Ser Arg	Gly Arg	Arg Gln	Arg Arg Met His	
311	20	25				30		
313	cct aac	gtt agt	caa ggc	tgc caa	gga ggc	tgt gca	aca tgc tca gat	440
314	Pro Asn	Val Ser	Gln Gly	Cys Gln	Gly Cys	Ala Thr	Cys Ser Asp	
315	35	40				45	50	
319	tac aat	gga tgt	ttg tca	tgt aag	ccc aga	cta ttt	ttt gct ctg gaa	488
320	Tyr Asn	Gly Cys	Leu Ser	Cys Lys	Pro Arg	Leu Phe	Phe Ala Leu Glu	
321	55	60				65		
323	aga att	ggc atg	aag cag	att gga	gta tgt	ctc tct	tca tgt cca agt	536
324	Arg Ile	Gly Met	Lys Gln	Ile Gly	Val Cys	Leu Ser	Ser Cys Pro Ser	
325	70	75				80		
327	gga tat	tat gga	act cga	tat cca	gat ata	aat aag	tgt aca aaa tgc	584
328	Gly Tyr	Tyr Gly	Thr Arg	Tyr Pro	Asp Ile	Asn Lys	Cys Thr Lys Cys	
329	85	90				95		
331	aaa gct	gac tgt	gat acc	tgt ttc	aac aaa	aat ttc	tgc aca aaa tgt	632
332	Lys Ala	Asp Cys	Asp Thr	Cys Phe	Asn Lys	Asn Phe	Cys Thr Lys Cys	
333	100	105				110		
335	aaa agt	gga ttt	tac tta	cac ctt	gga aag	tgc ctt	gac aat tgc cca	680
336	Lys Ser	Gly Phe	Tyr Leu	His Leu	Gly Lys	Cys Leu	Asp Asn Cys Pro	
337	115	120				125	130	
339	gaa ggg	ttg gaa	gcc aac	aac cat	act atg	gag tgt	gtc agt att gtg	728
340	Glu Gly	Leu Glu	Ala Asn	Asn His	Thr Met	Glu Cys	Val Ser Ile Val	

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/894,912

DATE: 07/18/2001
TIME: 10:30:02

Input Set : A:\37260Aseq.txt
Output Set: N:\CRF3\07182001\I894912.raw

341	135	140	145	
343	cac tgt gag gtc agt gaa tgg aat cct tgg agt cca tgc acg aag aag			776
344	His Cys Glu Val Ser Glu Trp Asn Pro Trp Ser Pro Cys Thr Lys Lys			
345	150	155	160	
347	gga aaa aca tgt ggc ttc aaa aga ggg act gaa aca cgg gtc cga gaa			824
348	Gly Lys Thr Cys Gly Phe Lys Arg Gly Thr Glu Thr Arg Val Arg Glu			
349	165	170	175	
351	ata ata cag cat cct tca gca aag ggt aac cta tgt ccc cca aca aat			872
352	Ile Ile Gln His Pro Ser Ala Lys Gly Asn Leu Cys Pro Pro Thr Asn			
353	180	185	190	
355	gag aca aga aag tgt aca gtg caa agg aag aag tgt cag aag gga gaa			920
356	Glu Thr Arg Lys Cys Thr Val Gln Arg Lys Lys Cys Gln Lys Gly Glu			
357	195	200	205	210
359	cga gga aaa aaa gga agg gag agg aaa aga aaa aaa cct aat aaa gga			968
360	Arg Gly Lys Lys Gly Arg Glu Arg Lys Arg Lys Pro Asn Lys Gly			
361	215	220	225	
363	gaa agt aaa gaa gca ata cct gac agc aaa agt ctg gaa tcc agc aaa			1016
364	Glu Ser Lys Glu Ala Ile Pro Asp Ser Lys Ser Leu Glu Ser Ser Lys			
365	230	235	240	
367	gaa atc cca gag caa cga gaa aac cag cag cag aag aag cga aaa			1064
368	Glu Ile Pro Glu Gln Arg Glu Asn Lys Gln Gln Lys Lys Arg Lys			
369	245	250	255	
371	gtc caa gat aaa cag aaa tcg gta tca gtc agc act gta cac tag			1109
372	Val Gln Asp Lys Gln Lys Ser Val Ser Val Ser Thr Val His			
373	260	265	270	
375	agggttccat gagattattg tagactcatg atgctgctat ctcaaccaga tgcccaggac			1169
377	aggtgctcta gccatttagga ccacaaatgg acatgtcagt tattgctctg tctaaacaac			1229
379	attcccgata gttgctatat tcttcataca agcatagtt acaacaaaga gccaaaagat			1289
381	caaagaaggg atactttcag atggttgtct tgtgtgcttc tctgcatttt taaa			1343
384	<210> SEQ ID NO: 10			
385	<211> LENGTH: 272			
386	<212> TYPE: PRT			
387	<213> ORGANISM: Homo sapiens			
390	<400> SEQUENCE: 10			
392	Met His Leu Arg Leu Ile Ser Trp Leu Phe Ile Ile Leu Asn Phe Met			
393	1	5	10	15
396	Glu Tyr Ile Gly Ser Gln Asn Ala Ser Arg Gly Arg Arg Gln Arg Arg			
397	20	25	30	
400	Met His Pro Asn Val Ser Gln Gly Cys Gln Gly Gly Cys Ala Thr Cys			
401	35	40	45	
404	Ser Asp Tyr Asn Gly Cys Leu Ser Cys Lys Pro Arg Leu Phe Phe Ala			
405	50	55	60	
408	Leu Glu Arg Ile Gly Met Lys Gln Ile Gly Val Cys Leu Ser Ser Cys			
409	65	70	75	80
412	Pro Ser Gly Tyr Tyr Gly Thr Arg Tyr Pro Asp Ile Asn Lys Cys Thr			
413	85	90	95	
416	Lys Cys Lys Ala Asp Cys Asp Thr Cys Phe Asn Lys Asn Phe Cys Thr			
417	100	105	110	
420	Lys Cys Lys Ser Gly Phe Tyr Leu His Leu Gly Lys Cys Leu Asp Asn			

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<210> 31
<211> 2384
<212> DNA
<213> Mus musculus

<220>
<221> CDS
<222> (511)..(1347)

<400> 31

See next page for erroneous portion of seq. 31

09/894,912 7

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tctaaacaagg tgtatctagt aggagagaaa gccaccacaa taaatatatt tgttaatagn 2367

taaaaaaaaaa aaaaaaaaaa 2384

see item 9
on Error
summary
sheet



Use of n and/or Xaa has been detected in the Sequence Listing.
Review the Sequence Listing to insure a corresponding
explanation is presented in the <220> to <223> fields of
each sequence using n or Xaa.

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/894,912

DATE: 07/18/2001
TIME: 10:30:03

Input Set : A:\37260Aseq.txt
Output Set: N:\CRF3\07182001\I894912.raw

L:14 M:270 C: Current Application Number differs, Replaced Application Number
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:94 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:122 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:153 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:1201 M:258 W: Mandatory Feature missing, <223> not found for SEQ ID#:31
L:1201 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31